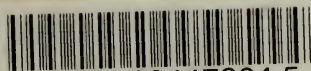


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Our 

Wild Flowers

BY

I. ALLEN JACK.

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Queen's University at Kingston

OUR WILD FLOWERS.

INTRODUCTION.

The following papers are not written for botanists, nor are they intended for those disposed to enter upon a systematic study of plants. With a strong suspicion that his ignorance may readily be detected by the learned, and with the sincere desire not to be mistaken for a pretender, the writer readily admits at the outset that his knowledge of the subject selected for treatment is limited. He is however led to believe that this need not necessarily interfere with the comparatively successful accomplishment of his present purpose. Having always entertained and nourished an affection for the beauties of nature, and having become convinced that they could not be appreciated without methodical consideration, he has sought to acquire and utilize some knowledge of that branch of science which relates to vegetable life. A few years largely devoted to searching for and identifying wild flowers, and a lifetime passed during which they never failed to interest him, have enabled him to learn something of the aspect, names and places of many of them.

In the earnest hope that, through the use of his little knowledge, he may

enable those who know less than himself to share the pleasure which he has derived from the consideration of an extremely captivating subject, he ventures to place before the public the partial result of his investigations.

Almost all the flowers described and mentioned may be found in the vicinity of Saint John, for whose inhabitants the papers are primarily though not exclusively written, but many of them, with others not mentioned, flourish in other places in the province.

In the treatment of the subject, although the Latin names are used they are almost invariably accompanied by the common English appellations, except in cases where none such exist. Subject to this exception scientific language has been carefully avoided from the conviction that, although more accurate and better adapted for the scientific reader, it would not be so well suited for those who have made no effort to master proper technical terms. With the solitary exception of the orchids, no one of the families into which plants are divided has been selected for special consideration. The exception has been made, partly because of the extreme

singularity of almost all and the great beauty of many of the orchids; partly because the writer has made a special search with fairly successful results for these attractive flowers. In the arrangement of the papers, the general intention, from which there is an occasional departure, has been to group plants in accordance with the seasons when they bloom and the kinds of place in which they grow. In selecting flowers for description or notice the writer has been influenced by the following amongst other considerations:

1. To compel the admission of doubters in our midst that they are surrounded by floral beauty.

2. To dispel some errors with reference to the qualities of our flowers.

3. To make the general public better acquainted with flowers which they have seen but never known.

4. To indicate the seasons when and the places where rare or comparatively rare flowers may be found.

It is not claimed that the selection is even approximately complete, nor could it be so unless these papers were so extended in number and volume as to repel or perhaps appal those for whom they are intended.

It is indeed more than probable that there are important omissions from the number of flowers mentioned, partly from the lack of knowledge and partly from defect in judgment of the writer. Fortunately, however, such omissions cannot impair the value of the information furnished, and can only suggest the regret that such information is not more extensive.

Before concluding this introduction it may not be inopportune to make a few remarks, even though they be in a measure trite, upon the benefits to be derived from the consideration of the subject of these papers.

Bacon, in the Advancement of Learning, observes: "Let no man, out of a weak conceit of sobriety, or an ill-applied moderation, think or maintain that a man can search too far, or be too well studied in the book of God's Word or in the book of God's Works." Now plants or their remains occur in almost the earliest pages of the book of God's works, after unseen forces and inorganic matter, but before living, breathing, moving things. It is to plant life, therefore, as one of His early revelations, that he who seeks to know whether there is a Creator, naturally primarily directs his attention. There is something more comprised in the words, "Consider the lilies," than a mere suggestion that they should receive a momentary glance. It is perhaps a mixing of tropes, but it may be truly said that plants should present themselves to him who yearns for truth as a portion of God's primer, and as one of the first rungs in a ladder whereby faith may climb from earth to Heaven. And it is not merely the existence of a Creator which can be learned from plants, but very much of His nature, capacity and attributes. What profound wisdom, what incomprehensible ingenuity are manifested in the infinitely varied structural arrangements for the performance of their functions. What an interest in their welfare and perpetuation, what astounding fore-

thought appear in the preparation of soils for their production and growth and in the sequence of the seasons of each year. And lastly, what a sublime appreciation of beauty on the part of their Creator is demonstrated from the simple fact that they are so beautiful. Truly indeed may it be said of the man who neglects to consider the lilies that he is depriving himself of great assistance in intellectual and spiritual growth. It is generally conceded that some knowledge of the concrete must precede a perception of the abstract, and that the recognized powers of sense must be exercised before the mysterious inner consciousness can become an active agent. And so it may be fairly claimed that the man upon whom a visibly beautiful flower makes no impression is but poorly qualified to form a conception of an angel, or to grasp even the shadow of a spiritual idea.

Again, man can learn from plants something of the benefit of obedience to law, and although, unlike them, free to think and act for himself, may be led to find and voluntarily subject himself to regulations best adapted for his well-being. And yet again, the valuable lesson may be learned from their contemplation, that beauty and utility may and should be combined.

A score of treatises might be written under the foregoing heads, but here they are merely suggested for thought and to indicate the variety and magnitude of topics presented for consideration to the lover of flowers.

In this and in the following papers the writer makes no attempt to do more than follow in the paths which

he has specifically indicated. It is not so much as aids to intellectual development, but as ministers to the emotions and handmaids to happiness, that flowers are considered in these papers.

Unable to perceive the necessity for submitting reasons, he fearlessly dogmatizes. He who loves not flowers is like "the man that hath no music in himself." and with the latter must share the condemnation of the great bard.

If men and women would only exercise their ordinary faculties they would discover countless sources of pleasure, at the same time innocent, and also, a matter of no small importance to so many, inexpensive.

How few there are who avail themselves of delicious summer days to ramble through the woods. How many there are who dread long journeys by rail or stage, because they have never learned to regard with interest many objects of which the loveliness, if perceived, would help to shorten time and space.

And what may not be said of the possible ministrations of our sweet wild flowers? The mere memory of them is a valuable possession. When the eyes fail, or the limbs, through age or perhaps disease, are no longer equal to the tramp through moss and fen, the remembrance of hardly sought and much prized blessings of days gone by is a precious source of consolation. Even when the shadow of death was falling on him, the beauty-loving Greek found some satisfaction in hoping to gather the asphodel in the hereafter.

I. ALLEN JACK.

I.

Day-stars! that ope your eyes with man, to
twinkle

From rainbow galaxies of earth's creation,
And dew-drops on her holy altars sprinkle
As a libation.

Ye matin worshippers! who bending lowly
Before the uprisen sun, God's lidless eye,
Throw from your chalices a sweet and holy
Incense on high.

These stanzas from Horace Smith's Hymns to the Flowers form a fitting prelude to the subject chosen and the whole poem should be familiar to every gardener, every botanist, and every lover of nature.

How much there is in connection with the flower born to blush unseen, for theologian, philosopher, artist and man of science to consider. Only read the description of the myriad of wonderful and beautiful plants in the jungles of Africa, by the accomplished Schweinfurth, or what is told by other travellers of the blossoms blooming amid the Brazilian forests, and you begin to question: Why are they there? What are their uses? What was and is the reason for placing so much loveliness and grandeur in the wildness, to be seen, if seen at all, only by insensate brutes? Is it to be wondered that man, at a very early period in the world's history, found but one answer to these queries—that God, their creator, was pleased with the beauty of His creations. The learned of later times have answered in other ways. But notwithstanding all that they teach us, we feel that the ancient solution still holds true; that there is yet force in the saying that "God saw everything that He had made, and, behold, it was very good."

And, being satisfied that the deity found pleasure in the flowers, it is easy to comprehend how men of a remote past came to use them as a means of worship. And, though we may condemn the extent to which the principle and practice of sacrifice have been carried, the offering of blossoms in the temple or at the altar deserves no censure. It is, alas! true that these innocent and lovely creations have been too often connected with false worship and wild orgies unworthy to be associated with any religion deserving of regard. But it is equally true that through such ordeals they have passed scathless. Indeed, it may be asserted that, notwithstanding the dread entertained by many that the spiritual aspect of worship may be lost in that which they deem sensuous, there is a purity and simplicity about flowers which lead religious persons generally to permit their use in any sanctuary.

Among primitive peoples there has often been a tendency to connect the instrument with the object of adoration. Flower worship cannot, however, be said to have been actually practiced by any nation of antiquity, although many plants were considered sacred. The lotus, the laurel, the myrtle and the mistletoe were so regarded. The rose, although always and everywhere recognized as the queen of flowers, does not appear to have ranked with the sacred plants, among which, however, a less pretentious plant—the onion—seems to have been enumerated.

In modern times flowers are treated with sufficient respect to induce the adoption of their names for human beings—Rose, Violet, Marguerite, Lily,

Althea and Camelia are familiar designations for those of the gentle sex among us, and other titles might perhaps be more appropriately borrowed. Some years ago, upon the application of a Millicete Indian, I named his adopted white baby daughter "Moneses," after a charming star-shaped wild flower, and the name was duly given in baptism. It is worthy of remark that "Moneses," although of pure Greek origin from two words which together signify the solitary desire, was regarded by the aboriginies as of an Indian source solely from its sound.

A reciprocal practice of giving the name of its discoverer or cultivator to the flower has not always satisfied the canons of euphony. The "Linnaea," after Linnaeus, and the "Mitchella," from the less promising name of Mitchell, are somewhat notable exceptions.

The use of herbs by magicians, witches and physicians has always caused some plants to be regarded from a peculiar and not always pleasant point of view. Nathaniel Hawthorne, in his posthumous work, Septimius Felton, makes thrilling use, in this connection of a flower, the "Sanguinia Sanguinissima," which, fortunately, is purely imaginary, but which is none the less uncanny in all its terrible beauty.

In the old times and in the old lands there can scarcely have been a very marked distinction between the wild and cultivated florae and, whatever difference there may have been, was probably the result of neglect in the case of the former and of care in that of the

latter. In Asia, Africa and Southern Europe, at least in those parts where men abounded, the soil was generally prolific, the vegetation rich and varied, and there was little or no necessity to seek for exotics, or to use extraordinary care with indigenous plants. The hanging gardens of Babylon are, of course, sufficient to testify that floriculture was not neglected in Asia, and the classical references are sufficiently numerous to leave no room for doubt that large spaces were devoted to the cultivation of flowers in Athens and other Grecian cities, and at Rome.

But Botany was not then known as a science, nor, indeed, was it until centuries of the Christian era had elapsed that much curiosity was evinced for the secrets of vegetable life. Had the luxurious Roman of the Empire, who sent to Britain for his oysters, who spent a fortune and rose before the stars were extinguished to feed his mullets, but received the hint, the utmost parts of the known world would have been sought for blossoms.

It was reserved for a later date and a more phlegmatic people, to wit, the Dutch, to rise to the highest point of enthusiasm over the possible discovery or production of a black tulip, and for the descendants of an English savage to pay a thousand pounds for an orchid.

In a modern garden, to some extent, but more especially in a modern greenhouse, we are confronted by samples of vegetable life immediately or mediately from many and varied climes. Resemblance may sometimes be traced between denizens of the enclosure and those of the cutlying waste, but, al-

though there may be relationship, identity rarely or never exists. In other words, it is not the use of specially selected earth, chemicals, artificial heat, and cultivation which makes the difference between the confined plant and its uncultured cousin.

It is the intention of this series of papers to treat, not of the pampered exotics, but the less regarded plants which, like Topsy, simply "grewed," having obtained no help from man, and having aroused little or no interest in their welfare in human breasts.

2.

Ye bright mosaics! that with storied beauty
The floor of nature's temple tessellate,
What numerous emblems of instructive duty
Your forms create!

'Neath cloistered boughs each floral bell that
swingeth,

And tolls its perfume on the passing air,
Makes Sabbath in the fields, and ever ringeth
a call to prayer.

"The writer," says Henry Morley, "who first taught Englishmen to look for principles worth study in the common use of speech, expecting censure for choice of a topic without dignity, excused himself with this tale out of Aristotle: When Heraclitus lived, a famous Greek, there were some persons led by curiosity to see him who found him warming himself in his kitchen, and paused at the threshold because of the meanness of the place. But the philosopher said to them: 'Enter boldly, for here too there are Gods.'" * *

* "God, who gave to the moth his dainty wings, and to the violet a scent whose use is but the creation of pleasure, gave to man, with the delights

of speech, faculties that weave them by the subtlest of his arts into a flower-world of intellect and feeling." Pointing towards the wood, untrimmed, unoccupied, if not unclaimed by man, the rank marsh and the tangled coppice, and quoting again from our English author, "we may say to the doubting, enter boldly, for here, too, there are Gods."

It is indeed incorrect to allege absolutely that wild flowers have aroused no interest in their welfare in human breasts. Man by nature is fond of all beautiful objects, and children have a love almost amounting to a passion for flowers of every kind. Who has not been touched at the sight of little ones, the offspring of both rich and poor, supremely happy in the possession of a few half-withered dandelions. The authoress of "The Near and Heavenly Horizon" tenderly refers to this trait of infancy in the following passage from that work: "Little shouts were interchanged: 'Have you found some?' 'Yes.' 'A good place?' Silence. There is no pursuit where selfishness shows itself more plainly than in this pursuit of lilies of the valley. One is silent. To say 'no' would be a falsehood; to say 'yes' would be to lose one's prize. So we make all the haste we can. If scrupulous we murmur something very vague indeed; and, the treasure secured, we slip away to some other hiding place all covered with white bells.

In this manner Rose went through the wood; and when she reached the high ground, where the lilies do not venture, she got uneasy, and called her brother, who came with trousers

torn and three poor sprigs in his hand. 'All that,' she said, and then showed her great bunch. 'Oh!' sighed the little fellow; and his poor flowers dropped from his fingers."

It is with no intention to admit the doctrine of the French philosophers as to the primary condition of thought in nature, or to controvert the teaching of theologians in regard to original sin, that we may attempt to explain changes which certainly do take place in opinions.

There can be at least no doubt that, if a view upon any subject commonly prevails in society, that view is pretty sure eventually to influence if not destroy antagonistic preconceived ideas.

If, for instance, gold is adopted as the standard of value, it is difficult to persuade the world that what will not procure gold is worth the seeking.

It is therefore not hard to understand that, as we grow older, we are led to cast aside things which we once prized, from learning to believe that we never had a good reason for thinking highly of them, and yielding to the popular estimate of their value.

If it is necessary that, in order to participate in eternal happiness, we should become as little children, it is certainly advisable that, for the purpose of receiving temporal pleasure, we should not too readily abandon the tastes which, when children, we possessed.

To those who are truly influenced by the love of beauty flowers must always be a means of gratification. But, whilst all flowers claim admiration, there are reasons which may well induce one to specially esteem the blos-

soms of wild plants. The difficulty in securing the most rare; the frequent novelty of their aspect; the mystery as well of their concealment as of their appearance; the incidents connected with their discovery, all tend to enhance their charms. Then, again, the very efforts that must be made in searching for them so enlarge the capacity of observation that, when they are found, the mind is enabled to detect details of beauty in them which would not so readily be suggested in the case of flowers of garden growth.

Diogenes with his lighted lantern seeking for an honest man has his counterpart in the botanist with his vasculum and muddy boots, his keen powers of vision and his devoted zeal, searching for rare flowers.

And truly, if there is any bond of sympathy between plant and human being, the botanist may say with Terence, "*homo sum et nihil humanum alienum a me puto*," I am a man and I consider nothing which relates to humanity as of no interest to me.

The knowledge possessed by the ordinary citizen of the wild flowers in his environment is very meagre. The taxpayer of Saint John, for instance, is generally conscious of the existence of the "*Epigaea Repens*," the ground laurel, trailing arbutus or May-flower, but he has never learned that it has received its scientific name from its trailing growth, nor that it is but one of a numerous family. He also knows the butter-cup, but he does not know that it is a "*Ranunculus*," nor that it is so called because leading members of its family grow in places where little frogs abound. Of course the vio-

lets are among his acquaintance, and he knows that some are white and others blue; but he does not know that some have lance-shaped leaves, and that generally their foliage is very varied; that some are yellow; some have downy and others smooth stems; nor that, among the blossoms which he designates as blue, countless tints appear, from the hue akin to that of skim milk to the color of the sky at midday in June, and tyrean purple. There are two shrubs with very showy blossoms, cousins of the May-flower, common in waste places near the city, which deserve mention. One is the "*Rhodora Canadensis*," the rose-purple blossoms of which appear before the leaves in May. The other is the "*Kalmia Angustifolia*," which derives its name from that pupil of Linnaeus, Peter Kalm, who is one of the prominent characters in Kirby's Golden Dog, the leading Canadian romance. The *Kalmia*, also known as Lamb-Kill and Sheep Laurel, has a striking coronal of rose-colored flowers, of which the stamens are caught in as many niches in the corolla from which they spring to shed the pollen in due season.

2

Your voiceless lips, oh flowers! are living preachers,

Each cup a pulpit, and each leaf a book,
Supplying to my fancy numerous teachers
From loneliest nook.

Floral apostles! that in dewy splendor

"Weep without wo, and blush without a crime;"

O, may I deeply learn, and ne'er surrender,
Your lore sublime!

People from the British Isles often make statements with reference to Canada utterly opposed to facts. They do not hear the song of the nightingale or sky-lark here, and in consequence assert that we have no singing birds. Because our blue violets are devoid of perfume, or because knowledge has not been forced upon them, they assume that none of our wild flowers are fragrant. Indeed some of them go so far as to allege that there are no wild flowers in Canada.

I forego the pleasing and easy task of upholding the vocal powers of our many feathered songsters only because it is outside my present purpose. I must, however, make a few remarks upon the asserted absence or imperfection of our flowers.

It would not be difficult to present a long list of flowers distinguished for the sweetness of their perfume, growing rank in the fields, marshes, waters or woods of this province. Their perfume, moreover, is extremely varied and, in many instances, peculiarly powerful. The most ordinary observer who has lifted to his nose the earliest spring blossom, the May-flower or trailing arbutus, the wild rose, or the pond lily, needs no further evidence to prove how groundless is the charge that our wild flowers are scentless. The common white violet, which grows by the roadside almost everywhere in the country districts, has a very sweet and refined, although somewhat faint aroma. There is also another plant, the "*Linnaea Borealis*," of the honeysuckle family, of which the beauty of its minute blossoms is

only equalled by the charming quality and the intensity of its odor. With such attractions it demands a description for those who do not know it by name.

From a graceful vine with small, rounded, dark green leaves, creeping in the moss of a grove or forest, a stalk rises upright two inches or thereabouts which sustains two hanging blossoms. These in shape are like half-closed parasols of fairies, if there were fairies and they carried parasols, while in color they are pink. The great Swedish botanist, Linnaeus, loved this flower, and, as before observed, it is from him that it derives its name. Any one who has passed along a country highway in places where the "Linnaea" abounds, shortly after a summer shower, unless deprived of the sense of smell, will never forget its delicious aroma. The orchis family is represented in this province by probably between twenty and thirty species, and many of them are most delectably fragrant. Of these a variety of the "Spiranthes," or Ladies' Tresses, is quite common, and has been plucked by many picnickers unacquainted with its name. It grows in meadows or pastures, and to a height of eight or nine inches, and its white flowers are arranged spirally around its light green stalk with sheath like leaves.

The largely represented "Ericaceae" or Heath Family, which includes the May-flower, also produces a number of plants with very fragrant blossoms. One of these, the "Moneses Uniflora," previously mentioned, is but little known, but is so attractive that

the number of those acquainted with it should be largely increased. The stalk, which rises from a height of from two to four inches from a cluster of rounded leaves at its base, supports a pendant, five-petalled, star-shaped flower half an inch broad, white or slightly rose-colored. The perfume of the "Moneses" is simply delicious, and might safely be offered in competition with that of almost any other flower, excepting always some of the roses. It is probably impossible to give a true idea in words of the nature of a perfume, but in suggesting that the fragrance of the monesis is not wholly unlike that of the cultivated lily of the valley, though less oppressive, its freshness, purity and delicacy may be partially appreciated.

It would be productive of good results if Canadian, as well as English, Scotch and Irish noses were on greater terms of intimacy with our many sweet-smelling wild flowers. Not only would untrue statements cease to be made, but execrable taste, or that which claims to be taste, would be corrected. There are few practices in modern society, not being sinful, which are so objectionable as that of saturating articles attached to the person with some of the fluids sold by druggists and called perfumes. It is one of the marvels of the age that a naturally charming woman should take so much pains to obscure or annihilate her charms. Nor should it be forgotten that the exercise of a perverted taste may and does produce some personal and regrettable result. It can readily be conceived that the scent of such a flower as the "Moneses" might

help to raise a soul to heaven, but its most ardent admirer would scarcely dare to claim as much for a drop of patchouly. There are indeed some wild flowers which, although fragrant, are not pleasantly so. The purple trillium is probably the most noticeable of these, and happily the entire number of offenders of this class is extremely small.

There is nothing to be gained by warmth of temper in dealing with persons who make untrue statements in ignorance of facts. One who knows the truth, however, should readily be pardoned for being amazed when he hears a remark upon the absence or paucity of flowers in Canada. It may be broadly stated that plants visible to the unaided eye may be found almost in every place where man has done nothing to prevent their growth, and that, where there is a plant, there is usually a flower. But in Canada generally it is not the mere presence of plant life, but the exhibition of variety and rare beauty in vegetation which demands attention. It must not be supposed, however, that wild flowers, even of a common order, can be seen without some effort. They are not borne by the winds through the streets of a town, nor are they always in sight from the country highway. For some you have to search to some extent, while others can only be discovered after a diligent tramp through places but ill adapted for good clothes and thin leather.

Again, Europeans, on coming to America, forget to make allowances for the conditions in a new country, which differ so essentially from those

to which they have been accustomed. Land is never unclaimed and but rarely uncultivated in Europe, and it is there the exception rather than the rule for plants to spring from the virgin soil. In the greater part of Canada the differences in these respects are very marked, and while the sportsman can, within a few miles of a populous centre, find game which has never been under the eye of the keeper, the ranger of the woods may pluck flowers which have drawn their sustenance from earth that has never known a plough or spade.

But is not the real reason for misapprehension and misstatement rather due to the fact that the Englishman and Irishman pine for the dear primrose and daisy of their childhood; that the Scotchman misses the heather of his native land, that he dismally asks "see the broom wi' its tassels on the lea?" And if this is the reason, should not the offence be pardoned?

As a matter of fact, a very pretty primrose, not identical in size and color with that of the British Isles, but much the same in form, has been gathered, though not in large quantities, in fields near St. John; daisies of many kinds are sufficiently common throughout the province, and, although the broom may not grow here, the heather has many near relations in our comprehensive flora.

It has been indicated that our wild flowers generally cannot be discovered without some effort, but it should not be understood that a really serious effort is required to enable one to behold such of them as are most abundant.

Spring with us is fairly liberal in promises, but somewhat stingy in results, and usually it is not till after the middle of May that blossoms appear in profusion. Indeed it might almost be claimed that the spirit of loyalty which prevails in Canada among her people, extends to her herbs, shrubs and trees, and induces them to reserve their energies till the birthday of Britain's Queen. Then truly there is a rare feast for the eyes which find delight in beauty.

My remarks apply especially to this province and the vicinity of our own city, but need not necessarily be so restricted, and what may be seen on the outskirts of St. John, is typical of what is visible in the same season elsewhere.

Wherever there has been a non-interference with nature flowers appear in profusion.

The robin pear, the ash, the elder, the choke and wild cherry, the dogwood, and many other trees; the "*Diervilla Trifida*," or bush honeysuckle, the blue berry and its many cousins, the "*Rhodora Canadensis*," the "*Kalmia Angustifolia*," the raspberry, the currant, the gooseberry and countless other shrubs; violets in many shades of blue and white, the "*Coptis Trifolia*," or gold thread, with its white stars, the "*Clintonia Borealis*," a yellow lily, the strawberry, the "*Cornus Canadensis*," or pigeon or bunch berry and a host of other herbs are all in bloom and generally blooming in abundance. Special mention of many flowers is purposely omitted lest a profusion of citations should lead to a confused perception of the attempt-

ed picture. Only let my readers go and see for themselves or, if that is difficult or impossible, let them add to my description tassels covered with golden pollen, ferns and sedges, and green and red and yellow buds each seeking in friendly rivalry, to display its swathed loveliness before the others.

4.

"Thou wert not, Solomon, in all thy glory, Array'd," the lilies cry, "in robes like ours;

How vain your grandeur! Ah, how transitory
Are human flowers!"

In the sweet scented picture, Heavenly Artist!

With which thou paintest nature's wide
spread hall;

What a delightful lesson thou impartest
Of love to all!

It is the unvaried practice of musicians to commence a concert with some composition which utilizes the gifts and powers of every member of the company, and afterwards to produce the artists either singly or in smaller groups. Art clearly has in this found a precedent in nature. When the birds first appear they gather together in great assemblies, filling the air with sound; soon, however, they separate, at first in squads or divisions fairly large numerically, and finally in pairs. And so it is with vegetation, for, although, through the summer, there is a constant succession of varied blossoming, after the first grand outburst there is not seen again so general and widespread a profusion of bloom. When autumn comes indeed there is wonderful activity in the order of "*Compositae*," with multitudinous

and brilliant species, now appearing in the form of asters, now like dandelions, except perhaps in color, and again as tufts or bunches of brilliant hue. The effect of these in their great abundance and contrasted beauty, combined with the startling changes in tint of the leaves of trees and shrubs, is very grand, but is utterly different from the panorama of earlier summer

In the one case it is the festival of hope, but, when the summer is no more, we see in the final effort of the plants the pageant of triumph indeed, but also the cheery flaunting of their farewell.

We have glanced at the first floral display of summer, but there is yet much to be seen, without leaving the beaten road or overstraining the eyes, as the days pass and the sun grows stronger.

The dandelion and butter cup, with their well known power to change a common field into something like a cloth of gold, though vulgar objects, must not be forgotten. And perhaps, when it is noticed that the former, by reason of its leaves having teeth like the royal lion, is called "Dens-lionis," and that the latter is truly a "Ranunculus," the pair may escape contempt except of course that of agriculturists.

Reverting to the derivation of the name of the latter flower, I may here remark that it is not only some of the "Ranunculi" who have their genesis among little frogs. On one occasion I counted not less than sixty of these funny creatures, each squatting in the centre of a white water lily or upon one of its flat floating leaves.

There are other flowers extremely unpopular among farmers, and first upon the list stands the Ox-eye Daisy or white-weed, which, notwithstanding it has been used by Faust's Marguerite, whose name it has assumed, and by countless other maidens as a test for love, and although for some seasons it was fashion's favorite flower, is never likely to be really loved.

Our friends from the other side of the Atlantic will, however, please note that the botanists inform us that the ox-eye was originally naturalized from Europe.

The "*Oldenlandia Caerulea*" commonly called Bluets, or sometimes Fairies' eyes, is regarded as an unwelcome weed by the owner of a field, but is very pretty. It is one of the "Rubiaceae" or Madder family, and is a delicate little herb covered with a profusion of light-blue flowers fading to white, each with a yellowish eye.

There is an exceedingly showy plant, of the "Onagraceae" or Evening Primrose Family, which is common throughout this province, especially in recent clearings. I refer to the "Ebilobium" or Willow Plant, of which the stalk, from four to seven feet in height, is covered with long, narrow leaves, or above with the large pink purple blossoms. I always associate it in my memory with more or less successful hunts after wild pigeons over buckwheat patches and stretches of rough pasture land.

I refer to but two other comparatively common roadside plants, each exhibiting attractive flowers. The "*Spiraea Salicifolia*" of the Rose

Family is a shrub which grows to a height of three feet or less and bears at the ends of its somewhat numerous branches conical clusters of small white or flesh-colored blossoms. It is named "Spiraea" in consequence of its aptitude for being wound into garlands, the Greek derivative being used for other words in our language of which spiral is a good example. The "Solidago," or Golden-Rod, of the Composite Family is too well known to require description. It derives its name from the Latin word "Solido," in consequence of its asserted usefulness in healing wounds. Some years ago a fairly well supported attempt was made to secure the adoption of the Golden-Rod as the national flower of the United States. Why the movement was abandoned I cannot say, although it may have been in deference to the ideas of the people of the western states, who probably would advocate the claims of the "Potentilla Anserina" or Silver-Weed.

No one must imagine for a moment that the plants enumerated comprise all the flowering plants visible from a country highway. The botanist knows that there are scores of other species deserving notice solely for the beauty and conspicuousness of their blossoms; and hundreds, which, in consequence of the singularity or complexity of their forms, or the unexpected or marvellous manner in which they discharge ordinary or unusual functions, would richly repay the student willing to expend time and attention in their examination.

These papers, however, as previously indicated, are not intended for the

botanist, and scarcely even for the tyro in botany, and are written mainly to awaken an interest in a peculiar, interesting subject, and only incidentally and very partially, to afford such information as may stimulate some thought and possibly some research.

It is now my intention to consider what may be not inaptly termed non-gregarious flowers, and flowers which, although appearing in numbers together, select sequestered places for their homes. But before proceeding it is advisable to explain something which should perhaps have been explained before. Unscientific persons who are made acquainted with a single plant are greatly puzzled when they learn that it is one of a family to the members of which it bears little or no resemblance, while the other members also differ greatly in appearance each from the other. They further find it hard to understand why the family name is given to a few, perhaps to only one member of the family. The rose and the strawberry for instance present many points of difference, yet they are both members of the Rose family. So too the woodbine of the garden and the "Linnaea," although apparently greatly dissimilar, are both Honeysuckles, and the May-flower, the "Kalmia," the "Rhodora" and the "Moneses," no two of which seem to look alike, are all Heaths. It is sufficient to state that plants are grouped by botanists into families in consequence of points of resemblance and common qualities or properties, which, although not always apparent to the ordinary observer, really exist.

It is wonderful how nature in vege-

tation overcomes apparently unsurmountable obstacles. Ruskin gives a most happy proof of this in an exquisite description of a pretty flower struggling through the snow on Alpine heights, but we can see an exhibition of the same brave energy almost any day and any place. The "Potentilla Tridentata," with a little flower not unlike that of the strawberry plant, was always respected by that most worthy and useful scientist, Dr. Robb, for its pluck, perhaps because it is a quality so eminently Scotch. I have found this "Potentilla" in the suburbs of St. John maintaining its existence in a little gravel on the utmost height of a cliff composed of the very hardest rock. The "Potentilla," which is of the Rose Family, is represented by several species, all courageous and satisfied with hard fare. The common Cinque Foil or Five Finger, with yellow blossoms, creeping on the face of an arid field is familiar to many. The "Potentilla Fruticosa" or shrubby Cinque-Foil, which grows to a height of from two to four feet and is covered with showy, golden flowers, is not uncommonly found on the shores of lakes and rivers in the province. "Glaux Maritima" of the Primrose Family, a fleshy leaved perennial with white and purplish flowers, might perhaps be cited as another instance of fortitude, and one cannot fail to observe that this plant has selected a dwelling place very different from the comparatively luxurious homes of others of its kind, by the shores of the Bay of Fundy, exposed to all its storms.

5

Not useless are ye, flowers! though made
for pleasure,
Blooming o'er field and wave, by day and
night;
From every source your sanction bids me
treasure
Harmless delight.

Ephemeral sages! what instructors hoary
For such a world of thought could furnish
scope?
Each fading calyx a memento mori,
Yet fount of hope.

The Orchis Family occupies a very prominent and peculiarly interesting position among the various groups of plants and as, of the somewhat limited number of its species in North America, several may be found in this province, some of them deserve particular notice. The orchis is almost always excentric in some portion of its form, but in many species it exhibits flowers of remarkable beauty and, in some instances, exceedingly fragrant. As most persons know the Lady's Slipper, it may perhaps be cited as fairly representing in a very general way, characteristics of several orchids. I proceed to mention briefly a number of species which have been found by myself or have been brought to my notice. The "Gymnadenia" (Naked-Gland Orchis), "Tridentata" has a slender stalk from six to twelve inches in height, with a single oblong or ob-lanceolate obtuse leaf below and two or three smaller leaves above, and from six to twelve small light yellowish-green flowers.

The "Plantanthera" (Wide Anthered) "Obtusata" (Dwarf Orchis) is somewhat similar to the last, but has

a broader leaf of a different shape and does not grow higher than eight inches. I have found both of them frequently, in several places, once, toward the close of July, behind Lily lake. I think it was on the same occasion that I found, near the same lake, but on the city side, a somewhat rare species. I refer to the "*Platanthera Orbiculata*" (Large Round-Leaved Orchis), which is distinguished for two large glossy green leaves from four to eight inches in width, orbicular in form and spreading flat on the ground; its single stalk rises to a height of from one to two feet and supports several greenish white flowers not unlike long-winged insects or dragon flies, and very striking in appearance. I found the same plant in the middle of June on the bank of the Nashwauksis and also the "*Platanthera Dilatata*," or Northern White Orchis. The white or whitish flowers of this latter species cluster round the stem which, with erect lanceolate leaves, grows to a height of from six inches to two feet. The specimens seen by me were grouped round a spring of rare cold water, which bubbled out of the muddy bank of the river, and the combination made a very pretty picture, the blossoms somewhat reminding me of white lupins, while still suggesting the presence of strange insects. The "*Platanthera Psychodes*," or Small Purple Fringed Orchis grows as high as two feet, has many leaves varying in shape and bears round its stalk a profusion of very handsome blossoms of a color indicated by its name and fragrant. I have frequently found this flower, which somewhat resembles the hyacinth, in July and August in meadows and elsewhere, including the little brook which runs into Lily lake. The "*Goodyera Repens*," or Creeping Rattlesnake-Plantain, I have found in the woods near Saint Andrews and in other localities in August. In height it does not exceed eight inches and its greenish white flowers are small. The leaves, however, which cluster round the stalk are conspicuous and attractive from the fact that their prevailing tint of dark green is reticulated with white. I have described the "*Spiranthes Cernua*" in the third paper of this series and here only refer to a kindred species of somewhat similar appearance, but scentless, the "*Spiranthes Latifolia*," which I have frequently found in July near Saint John.

I have now to notice four species which in some respects resemble each other and which equal in beauty almost any plant produced in a hot house. The "*Arethusa Bulbosa*" is described as "a beautiful low herb consisting of a sheathed scape from a globular solid bulb, terminated by a single rose purple and sweet-scented flower," which is two inches long and very handsome. It blossoms in May and has occasionally been found in bogs in the province and I believe near Saint John.

The "*Pogonia*" (bearded) "*Ophio-glossoides*," which is more common, is to be found in June and July, in bogs and has, I believe, been picked in the Mispec barrens, has a single oval leaf near the middle of its stem

which does not exceed nine inches in height and bears a single flower, or sometimes two or three flowers, one inch in length, light purple in color and handsome. I have not myself had the good fortune to gather either of the two last named, but have seen specimens of both in the hands of other collectors. The "Calobogon" (beautiful bearded) "Pulchellus" is somewhat similar to the "Pogonia" mentioned above; it, however, reaches one foot in height, has a single grass-like leaf and bears from two to six flowers, each of which is an inch broad, pink-purple in color and bearded towards the summit with white, yellow and purple club-shaped hairs. I have found it in June or July in the New Maryland marsh near Fredericton, and also in the marsh encircling the first lake behind Lily Lake near St. John, where its delicate and rare loveliness was in particularly marked contrast with the aspect of the somewhat coarse surrounding plants. I once found several specimens of this orchid and also of the beautiful yellow violet, "Viola Pubescens," in the little islands and peninsulas left by the receding waters of the brook which serves to empty Half-moon Lake, and have seldom seen such a pretty picture of its kind. Each botanically was out of its proper place, but both were abundantly satisfying artistic cravings in thus flirting together among the runlets and ripples, bright with sunshine, the one with its pink purple blossom, the other with its corolla of canary hue. The last of the group of four, the "Calypso Bo-realis," is a very rare and beautiful plant, which I have found once only near the Kennebecasis river, in the precincts of St. John, towards the close of May; its stalk or scape from three to five inches high, with a single somewhat heart-shaped leaf, supports a large and showy variegated purple and yellow flower, less than an inch long, and resembling that of the Lady's slipper. The "Microstylis" (Adder's mouth) "Monophyllos" is another orchis which I have found, but, as it possesses no special attraction, it need not here be described. The "Corallorhiza" Coral-root) "In-nata," however, which I have found repeatedly in the College grove, Fredericton, in June, is so odd that it demands notice. The stalk is light brown or yellowish and leafless, and does not exceed nine inches in height; the flowers, which are from five to twelve in number, are of no distinctive color, and, like those of other orchids, are excentric in shape. The roots, as its name imports, resemble coral and are much branched. I conclude my remarks upon this family by reference to three species of the "Cypripedium" (Venus' Buskin, Lady's Slipper or Moccasin-Flower) all showy flowers. The "Cypripedium Acaule" (Stemless Lady's Slipper) is to be found in May or June in the woods or adjacent barren lands and is so well known that it scarcely requires description. I may, however, state for the sake of certain identification that its single pouch-like flower is nearly two inches long and varies in color from rose purple to occasional white and depends from a stalk or scape not more than one foot in height, two-leaved at the base.

The "Cypripedium Pubescens" (Larger Yellow Lady's Slipper) has from one to three flowers, the same in form as that last described, but pale yellow in color, while the stem is two feet high and leafy. It blossoms in May and June.

The "Cypripedium Spectabile" (Showy Lady's Slipper), which is the most beautiful of the genus, has a very leafy stem two feet high, which supports from one to three flowers, white tinged with purple, and differing but little in form or size from that of its two sisters. Its blossoms appear in July. The two last named Lady's Slippers have been found in the woods near Peters' lake, a few miles from Saint John, and, although rare in this locality, are, I believe, to be found in other parts of the province. The last mentioned orchis was cultivated with remarkable success by my father and for some years supplied a number of its beautiful flowers. An attempt on my own part to induce the Rattle-snake plantain orchis to grow in an enclosure near Saint John, although not absolutely without result, was not so encouraging as I desired.

G.

Posthumous glories! Angel-like collection!
Upraised from seed or bulb interr'd in earth,
Ye are to me a type of resurrection,

A second birth!

Were I, O God! in churchless lands remaining,
Far from all voice of teachers or divines,
My soul would find in flowers of thy ordaining.

Priests, sermons, shrines!

There are several plants which blossom in May besides those enumerated,

and of these I must refer to a few of the most attractive. The "Erythronium Americanum," or Dog's Tooth Violet, of the Lily Family, is not uncommon in pasture land or among alders. Its stalk rises from six to nine inches, supports a single yellow pendant bell-shaped flower about one inch long, and is flanked by two elliptical lanceolate leaves, sheathing its base, in color pale green with purplish spots. The "Trientalis Americana," or Star-Flower, of the Primrose Family, is four inches in height, the slight stem bearing a whorl of delicate pointed leaves and a single white star-shaped flower, and is common in damp woods near Saint John. The "Geum Rivale" (Water or Purple Avens), of the Rose Family, is a singular plant, and reaches a height of two feet and grows in damp meadows, its nodding blossoms, which almost appear as if they were made of a kind of tissue paper, being orange and purple. The "Iris Versicolor," or Larger Blue Flag, with sword-like leaves and showy flowers, mainly blue, but partly green, yellow and white, with purple veinings, may be found in damp places everywhere, and is generally well known. The "Arisaema Triphyllum," or Indian Turnip, of the Arum Family, is usually found in rich woods near St. John and elsewhere. It is large and striking in appearance, the flower being shaped like that of the relative, the "Calla," the lip, however, curling over; in general color it is greenish, but well defined dark purple and white stripes serve to render it peculiarly attractive. The juice of the root is very acrid, so much

so indeed that I once induced a dentist to the pocket flaps. I may mention to admit that it was a better tongue that I have seen a wild Geranium in biter than any drug which he was many spots on the road from Hampton accustomed to use. There are two to Clifton, and have also found a small charming spring flowers of the "Ran- wild Calla in marshes near the Milk- culaceae" or Crowfoot Family. Th ish. I cannot part from the spring or "Anemone Nemorosa" or Wood early summer flowers without re- Anemone bears a slight resemblance ference to the "Oxalis Acetosella to the butter-cup, but is much smaller or Common Wood Sorrel, the pretty in stalk and more delicate, while its blossoms of which are too well known blossom, one inch broad, is white, oc- to require description. Gilbert Ham- casionally tinged with purple outside. merton tells us that in Normandy the I have plucked this Anemone in the local name for this is "Le Pain de woods near St. John and elsewhere. Dieu," an obvious reference to its The "Hepatica Triloba," or Round- likeness to the manna, the small round lobed Hepatica, except as to its leaves, thing on the ground. The two "Tril- which are heart-shaped, and its blos- liums," the one purple, the other som, which is blue or purplish, resem- white with purple stripes at the base, bles its fair sister. I have no record the parts of each being arranged in and cannot entirely trust to memory, threes, are well known flowers in our but believe that the Hepatica is also provincial woods in May or early to be found, though rarely, near the June, as is also a species of the "Smi- lacina," or False Solomon's Seal.

Sometimes you may find in a single At the risk of these papers being locality several rare and attractive liable to the charge of incompleteness species. Once on the twenty-fourth of in this particular, and mainly with a May a field on the northerly side of view to avoid prolixity, my reference to the Kennebecasis River, about half to the later summer flowers must be a mile below Hampton village, afford- very brief. The ordinary time for ed myself and a little party of pedes- blossoming of the "Campanula Ro- trians a pleasant treat. There were tundifolia" or Harebell is July, but numerous specimens in full bloom of it may frequently be found with the Dog's Tooth Violet, the Yellow flower much later, sometimes even in and the Blue Violet, all before October or November. Its first leaves, mentioned; the "Claytonia Virginica," which afford the reason for its Latin name, are round, but they soon wither or Spring-Beauty, with veined rose- and their place is taken by grass-like tinted blossoms; the "Dentaria and foliage. I have, however, several times Diphylla" or Pepper-Root, with purple seen the round leaves during a mild flowers; and the "Dicentra Culculla- autumn, which the plant had appar- ria," or Dutchman's Breeches, ently supposed was a return of spring. with white and cream-colored The "Anemone Virginiana" or Tall flowers, each shaped like the Anemone, which reaches two feet nether garments of a Hollander, even

in height and has a blossom like that of the butter-cup, only larger, and of an opaque white, may be found in the fields near St. John. The same may be said of the "*Sisyrinchium Bermudiana*" or Blue-Eyed Grass, a very diminutive Iris, not unlike its sister, the flag and the "*Lilium Canadense*" or Wild Yellow Lily.

In the intervals of the St. John and Kennebecasis there are lilies five, six and even seven feet in height, which I have not classified, but which I presume are the same as the "*Lilium Supurbum*," or Turk's Cap Lily. There are certain plants which seem to attempt a kind of police duty in clinging to your garments or winding round your limbs. The "*Galium Bedstraw* or Cleavers, of the Madder family and represented by several species with inconspicuous flowers, but in some instances with pretty whorled leaves, has at least one species which, with its small hooked prickles, clutches rough or even smooth cloth most aggressively. The "*Clematis Virginiana*" and some of different species of "*Convolvulus*," with handsome trumpet shaped blossoms, delight in massing with the Bedstraw and other plants, and presenting their long twisted stems as an obstacle to man or other encroaching animal.

Among the plants of the swamps the "*Sarracenia Purpurea*," Side Saddle Flower or Pitcher Plant with large leathery flower and pitcher-shaped leaves half filled with water and small drowned flies, is common and very conspicuous. I once discovered in the marsh on the margin of Half-Moon Lake and have rarely

seen in other like localities the "*Utricularia Cornuta*," or Horned Bladderwort, its flowers, reminding me of queer old fashioned bonnets, small in size and light yellow in color, depending from slim reed or grass-like leafless stems. The wild roses and water lilies are too well known to require description and are mentioned solely because of the position which they hold among attractive flowers. The "*Lobelia Dortmana*," or Water Lobelia, with its pale blue corolla, not unlike its cultivated sister, a favorite in window gardens and hanging baskets, is found occasionally on the margin of ponds. I remember finding it in some profusion at Beaver Lake.

The "*Mitchella Repens*," or Partridge-Berry, is of the Madder Family, and sister of the Bluets and Cleavers previously mentioned, and ranks high among woodland beauties. Its flowers, white sometimes tinted with delicate purple, are in pairs and, although much smaller, remind one of those of the May-flower. They barely rise above the moss from a trailing stem with shining rounded leaves and scarlet berries, which matured the previous season. I have found this plant in blossom near Saint John on several occasions, but never in such abundance as on a sunny back close to the water fall behind Rothesay.

Among the plants of the fields in summer the "*Vicia*," or Vetch, is represented by more than one species with handsome blossoms not unlike those of the sweet pea; and at least two species of the "*Hypericaceae*," or St. John's Wort Family, with yel-

low flowers and peculiar transparent spots on the leaves, are not uncommon near the city and are worthy of notice.

The "Ericaceae," or Health Family, is well represented in the neighborhood of Saint John, and comprises the blue berry, the cranberry and a number of small shrubby herbs, of which the blossoms, although exceedingly pretty, are generally less regarded than the fruit. The "Monotropa Uniflora," Indian Pipe, Corpse-Plant or Angel-Flower, of this family, with waxy white stem, leaves and blossom, is not unfamiliar to even the ordinary observer; its sweet scented sister, the "Monotropa Hypopitys," of like appearance, although occasionally found in the province, is rare, perhaps unknown in this locality. There are also at least three species of "Pyrola," or False Winter-green, which grow in the woods about Saint John, and of these the "Pyrola Rotundifolia," or Round-leaved Pyrola, is the most conspicuous and beautiful. It consists of an upright stem, rarely one foot high, bearing at intervals a number of light pink or flesh colored nodding flowers, each less than an inch in breadth; and with shining thick orbicular leaves at its base. This "Pyrola" reminds me of a pleasant experience, with the narration of which I conclude these papers.

I was following the course of a rail fence, separating two farms which lay between the Kennebecasis River and the road leading from the city past Half-Moon Lake to Sand Point.

Leaving behind me the cleared portion of the holding, I had entered the woods and, having crossed the brow of the hill, was pushing my way through the branches down a somewhat steep incline towards the shore. At last I found myself in what a Stotchman might call a how, or a howm, with Tannahill when he sings:

The pairtricks down the rushy howm
Set up their e'en-in ca',

and yet, perhaps the most properly descriptive name for the little space is a dingle defined as a hollow on a hillside. The sunshine was at its best in this how, howm or dingle. It glinted among the leaves of the maple and birches; flashed on the silvery bark of the latter; brightened the sombre green of the firs, and cast a powerful glow upon the ground. And there, among the moss and ferns and a scant growth of sedges and wild grass, nourished by the decay of long dead and prostrate trunks, were my little friends the "Linnaea," the Round-Leaved Pyrola, and its sister, with waxy, star-like blossoms, the "Moneses Uniflora." There they were, and each in such profusion that the most greedy gatherer of blossoms could scarcely have asked for more. And, as if to attempt to improve upon a seemingly perfect picture, a pairtrick, or rather the bird which we in Canada call the part-ridge, with her brood of downy little chicks, came out of the thick wood and moved and rustled among the ferns, the grass, the sedges and the flowers.

